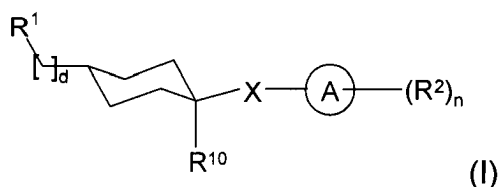


# Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

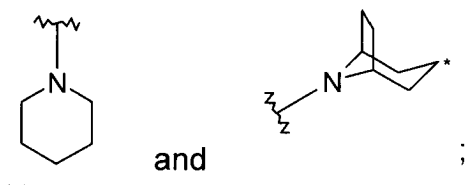
1. (Currently Amended) A compound of formula (I)



or a pharmaceutically acceptable salt, solvate, or derivative thereof, wherein:

X is a C<sub>1-5</sub> alkylene chain, ~~wherein said X is optionally substituted by one or more =O, =S, S(O)<sub>t</sub>, alkyl, or halogen and wherein said C<sub>1-5</sub> alkylene chain may optionally have 0-3 heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen;~~

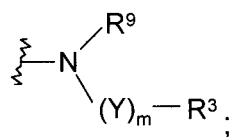
Ring A is selected from the group consisting of a saturated, partially saturated or aromatic 3-7 6-membered monocyclic or 8-10 8-membered bicyclic ring having one ring nitrogen and 0-4 additional 0 heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen;



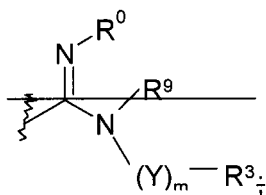
R<sup>1</sup> is selected from the group consisting of

~~(a) a saturated, partially saturated, or aromatic 4-7 monocyclic or 8-10 membered bicyclic ring having one ring nitrogen and 0-4 additional heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen, optionally attached through a C<sub>1-6</sub> alkylene chain, and optionally substituted by one or more R<sup>8</sup>;~~

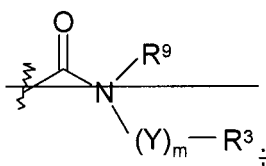
(b)



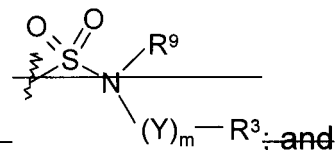
(c)



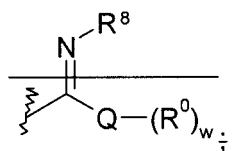
(d)



(e)



(f)



~~Q is carbon, oxygen, or S(O);~~

~~w is 1 or 2;~~

each  $R^2$  is independently selected from  $-OR^0$ ,  $-C(O)-R^0$ ,  $-S(O)_2-R^0$ ,  $-C(O)-N(R^0)_2$ ,  $-S(O)_2-N(R^0)_2$ ,  $-(CH_2)_a-N(R^0)(-V_b-R^+)$ ,  $-(CH_2)_a-(-V_b-R^+)$ , halogen, alkyl optionally substituted by one or more  $R^7$ , alkenyl optionally substituted by one or more  $R^7$ , alkynyl optionally substituted by one or more  $R^7$ , aryl optionally substituted by one or more  $R^6$ , heteroaryl optionally substituted by one or more  $R^6$ , cycloalkyl optionally substituted by one or more  $R^8$ , and heterocyclyl optionally substituted by one or more  $R^8$ ; and two adjacent  $R^2$ s on Ring A are optionally taken together to form a fused, saturated, partially saturated or aromatic 5-6 membered ring having 0-3 heteroatoms selected from oxygen, phosphorus, sulfur,

or nitrogen; or two geminal R<sup>2</sup>s are optionally taken together to form a spiro, saturated, partially saturated or aromatic 5-6 membered ring having 0-3 heteroatoms selected from oxygen, phosphorus, sulfur, or nitrogen, said fused or spiro ring being optionally substituted by one or more R<sup>8</sup>;

a is 0-3;

b is 0 or 1;

V is -C(O)-, -C(O)O-, -S(O)<sub>2</sub>-, or -C(O)-N(R<sup>0</sup>)-;

R<sup>+</sup> is alkyl, cycloalkyl, aralkyl, aryl, heteroaryl, heteroaralkyl, or heterocyclyl, wherein said R<sup>+</sup> is optionally substituted by one or more R<sup>8</sup>;

d is 0-1;

m is 0 or 1;

n is 0-5;

each R<sup>3</sup> independently is -H, -N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)C(O)R<sup>0</sup>, -CN, halogen, -CF<sub>3</sub>, alkyl optionally substituted by one or more groups selected from R<sup>7</sup> or -S-aryl optionally substituted by -(CH<sub>2</sub>)<sub>1-6</sub>-N(R<sup>0</sup>)SO<sub>2</sub>(R<sup>0</sup>), alkenyl optionally substituted by one or more groups selected from R<sup>7</sup> or -S-aryl optionally substituted by -(CH<sub>2</sub>)<sub>1-6</sub>-N(R<sup>0</sup>)SO<sub>2</sub>(R<sup>0</sup>), alkynyl optionally substituted by one or more groups selected from R<sup>7</sup> or -S-aryl optionally substituted by -(CH<sub>2</sub>)<sub>1-6</sub>-N(R<sup>0</sup>)SO<sub>2</sub>(R<sup>0</sup>), cycloalkyl or carbocyclyl optionally substituted by one or more R<sup>8</sup>, aryl optionally substituted by one or more R<sup>6</sup>, heteroaryl optionally substituted by one or more R<sup>6</sup>, or heterocyclyl optionally substituted by one or more R<sup>8</sup>;

Y is ~~alkyl, alkenyl, alkynyl, (CR<sup>4</sup>R<sup>6</sup>)<sub>p</sub>-, -C(O)-, -C(O)C(O)-, C(S)-, -O-(CH<sub>2</sub>)<sub>0-4</sub>-C(O)-, (CH<sub>2</sub>)<sub>0-4</sub>-C(O)-O-, N(R<sup>0</sup>)-C(O)-, C(O)-N(R<sup>0</sup>)-, N(R<sup>0</sup>)-C(S)-, -S(O)<sub>t</sub>-, O-C(=N-CN)-, O-C(=N-R<sup>0</sup>)-, C(=N-CN)-O-, C(=N-CN)-S-, C(=N-R<sup>0</sup>)-O-~~  
~~S-C(=N-CN)-, N(R<sup>0</sup>)-C(=N-CN)-, C(=N-CN)-, N(R<sup>0</sup>)-C[=N-C(O)-R<sup>0</sup>]-, N(R<sup>0</sup>)-C[=N-S(O)<sub>t</sub>-R<sup>0</sup>]-, N(R<sup>0</sup>)-C(=N-OR<sup>0</sup>)-, N(R<sup>0</sup>)-C(=N-R<sup>0</sup>)-, or C(=N-R<sup>0</sup>)-;~~

~~each R<sup>4</sup> independently is H or alkyl optionally substituted by R<sup>7</sup>, alkenyl optionally substituted by R<sup>7</sup>, alkynyl optionally substituted by R<sup>7</sup>;~~

~~each R<sup>6</sup> independently is selected from -H, -C(O)-OR<sup>6</sup>, -C(O)-N(R<sup>0</sup>)<sub>2</sub>;~~

~~-S(O)<sub>2</sub>-N(R<sup>0</sup>)<sub>2</sub>, -S(O)<sub>2</sub>-R<sup>6</sup>, aryl optionally substituted by R<sup>6</sup>, or heteroaryl optionally substituted by R<sup>6</sup>;~~

~~— p is 1-5;~~

~~— each t independently is 1 or 2;~~

each R<sup>6</sup> is independently selected from the group consisting of halogen, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OR<sup>0</sup>, -(CH<sub>2</sub>)<sub>1-6</sub>-OR<sup>0</sup>, -SR<sup>0</sup>, -(CH<sub>2</sub>)<sub>1-6</sub>-SR<sup>0</sup>, -SCF<sub>3</sub>, -R<sup>0</sup>, methylenedioxy, ethylenedioxy, -NO<sub>2</sub>, -CN, -(CH<sub>2</sub>)<sub>1-6</sub>-CN, -N(R<sup>0</sup>)<sub>2</sub>, -(CH<sub>2</sub>)<sub>1-6</sub>-N(R<sup>0</sup>)<sub>2</sub>, -NR<sup>0</sup>C(O)R<sup>0</sup>, -NR<sup>0</sup>(CN), -NR<sup>0</sup>C(O)N(R<sup>0</sup>)<sub>2</sub>, -NR<sup>0</sup>C(S)N(R<sup>0</sup>)<sub>2</sub>, -NR<sup>0</sup>CO<sub>2</sub>R<sup>0</sup>, -NR<sup>0</sup>NR<sup>0</sup>C(O)R<sup>0</sup>, -NR<sup>0</sup>NR<sup>0</sup>C(O)N(R<sup>0</sup>)<sub>2</sub>, -NR<sup>0</sup>NR<sup>0</sup>CO<sub>2</sub>R<sup>0</sup>, -C(O)C(O)R<sup>0</sup>, -C(O)CH<sub>2</sub>C(O)R<sup>0</sup>, -(CH<sub>2</sub>)<sub>0-6</sub>CO<sub>2</sub>R<sup>0</sup>, -O-C(O)R<sup>0</sup>, -C(O)R<sup>0</sup>, -C(O)N(R<sup>0</sup>)N(R<sup>0</sup>)<sub>2</sub>, -C(O)N(R<sup>0</sup>)<sub>2</sub>, -C(O)N(R<sup>0</sup>)OH, -C(O)N(R<sup>0</sup>)SO<sub>2</sub>R<sup>0</sup>, -OC(O)N(R<sup>0</sup>)<sub>2</sub>, -S(O)<sub>t</sub>R<sup>0</sup>, -S(O)<sub>t</sub>-OR<sup>0</sup>, -S(O)<sub>t</sub>N(R<sup>0</sup>)C(O)R<sup>0</sup>, -S(O)<sub>t</sub>N(R<sup>0</sup>)OR<sup>0</sup>, -NR<sup>0</sup>SO<sub>2</sub>N(R<sup>0</sup>)<sub>2</sub>, -NR<sup>0</sup>SO<sub>2</sub>R<sup>0</sup>, -C(=S)N(R<sup>0</sup>)<sub>2</sub>, -C(=NH)-N(R<sup>0</sup>)<sub>2</sub>, -(CH<sub>2</sub>)<sub>1-6</sub>-C(O)R<sup>0</sup>, -C(=N-OR<sup>0</sup>)-N(R<sup>0</sup>)<sub>2</sub>, -O-(CH<sub>2</sub>)<sub>0-6</sub>-SO<sub>2</sub>N(R<sup>0</sup>)<sub>2</sub>, -(CH<sub>2</sub>)<sub>1-6</sub>NHC(O)R<sup>0</sup>, and -SO<sub>2</sub>N(R<sup>0</sup>)<sub>2</sub> wherein the two R<sup>0</sup>s on the same nitrogen are optionally taken together to form a 5-8 membered saturated, partially saturated, or aromatic ring having additional 0-4 heteroatoms selected from oxygen, phosphorus, nitrogen, or sulfur;

each R<sup>7</sup> is independently selected from halogen, -CF<sub>3</sub>, -R<sup>0</sup>, -OR<sup>0</sup>, -OCF<sub>3</sub>, -(CH<sub>2</sub>)<sub>1-6</sub>-OR<sup>0</sup>, -SR<sup>0</sup>, -SCF<sub>3</sub>, -(CH<sub>2</sub>)<sub>1-6</sub>-SR<sup>0</sup>, aryl optionally substituted by -R<sup>6</sup>, methylenedioxy, ethylenedioxy, -NO<sub>2</sub>, -CN, -(CH<sub>2</sub>)<sub>1-6</sub>-CN, -N(R<sup>0</sup>)<sub>2</sub>, -(CH<sub>2</sub>)<sub>1-6</sub>-N(R<sup>0</sup>)<sub>2</sub>, -NR<sup>0</sup>C(O)R<sup>0</sup>, -NR<sup>0</sup>(CN), -NR<sup>0</sup>C(O)N(R<sup>0</sup>)<sub>2</sub>, -N(R<sup>0</sup>)C(S)N(R<sup>0</sup>)<sub>2</sub>, -NR<sup>0</sup>CO<sub>2</sub>R<sup>0</sup>, -NR<sup>0</sup>NR<sup>0</sup>C(O)R<sup>0</sup>, -NR<sup>0</sup>NR<sup>0</sup>C(O)N(R<sup>0</sup>)<sub>2</sub>, -NR<sup>0</sup>NR<sup>0</sup>CO<sub>2</sub>R<sup>0</sup>, -C(O)C(O)R<sup>0</sup>, -C(O)CH<sub>2</sub>C(O)R<sup>0</sup>, -(CH<sub>2</sub>)<sub>0-6</sub>-CO<sub>2</sub>R<sup>0</sup>, -C(O)R<sup>0</sup>, -C(O)N(R<sup>0</sup>)N(R<sup>0</sup>)<sub>2</sub>, -C(O)N(R<sup>0</sup>)<sub>2</sub>, -C(O)N(R<sup>0</sup>)OH, -OC(O)R<sup>0</sup>, -C(O)N(R<sup>0</sup>)SO<sub>2</sub>R<sup>0</sup>, -OC(O)N(R<sup>0</sup>)<sub>2</sub>, -S(O)<sub>t</sub>R<sup>0</sup>, -S(O)<sub>t</sub>-OR<sup>0</sup>, -S(O)<sub>t</sub>N(R<sup>0</sup>)C(O)R<sup>0</sup>, -S(O)<sub>t</sub>N(R<sup>0</sup>)OR<sup>0</sup>, -NR<sup>0</sup>SO<sub>2</sub>N(R<sup>0</sup>)<sub>2</sub>, -NR<sup>0</sup>SO<sub>2</sub>R<sup>0</sup>, -C(=S)N(R<sup>0</sup>)<sub>2</sub>, -C(=NH)-N(R<sup>0</sup>)<sub>2</sub>, -(CH<sub>2</sub>)<sub>1-6</sub>-C(O)R<sup>0</sup>, -C(=N-OR<sup>0</sup>)-N(R<sup>0</sup>)<sub>2</sub>, -O-(CH<sub>2</sub>)<sub>0-6</sub>-SO<sub>2</sub>N(R<sup>0</sup>)<sub>2</sub>, -(CH<sub>2</sub>)<sub>1-6</sub>-NHC(O)R<sup>0</sup>, and -SO<sub>2</sub>N(R<sup>0</sup>)<sub>2</sub> wherein the two R<sup>0</sup>s on the same nitrogen are optionally taken together to form a 5-8 membered saturated, partially

saturated, or aromatic ring having additional 0-4 heteroatoms selected from oxygen, phosphorus, nitrogen, or sulfur;

each  $R^8$  independently is selected from the group consisting of  $R^7$ , =O, =S, =N( $R^0$ ), and =N(CN);

$R^9$  is hydrogen, or alkyl optionally substituted by one or more  $R^7$ , ~~alkenyl optionally substituted by one or more  $R^7$ , alkynyl optionally substituted by one or more  $R^7$ , cycloalkyl optionally substituted by one or more  $R^8$ , heterocycl~~ optionally substituted by one or more  $R^8$ , heteroaryl optionally substituted by one or more  $R^6$ , or aryl optionally substituted by one or more  $R^6$ ; or

~~(Y)<sub>m</sub>- $R^3$  and  $R^9$  may combine with the nitrogen atom with which they are attached to form a saturated, partially saturated, or aromatic 5-7 membered monocyclic or 8-10 membered bicyclic ring that optionally contains 1 to 3 additional heteroatoms selected oxygen, phosphorus, sulfur, or nitrogen, wherein said ring may be optionally substituted with one or more  $R^8$ ;~~

$R^{10}$  is hydrogen, ~~alkyl optionally substituted by one or more  $R^7$ , alkenyl optionally substituted by one or more  $R^7$ , alkynyl optionally substituted by one or more  $R^7$ , cycloalkyl optionally substituted by one or more  $R^8$ , heterocycl~~ optionally substituted by one or more  $R^8$ , heteroaryl optionally substituted by one or more  $R^6$ , or aryl phenyl optionally substituted by one or more  $R^6$ ;

each  $R^0$  is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, carbocyclalkyl, aryl, heteroaryl, aralkyl, heteroaralkyl, heterocycl, and heterocyclalkyl, wherein each member of  $R^0$  except H is optionally substituted by one or more  $R^*$ , -OR\*, N( $R^*$ )<sub>2</sub>, =O, =S, halogen, -CF<sub>3</sub>,

-NO<sub>2</sub>, -CN, -C(O)R\*, -CO<sub>2</sub>R\*, -C(O)-aryl, -C(O)-heteroaryl, aralkyl, -S(O)<sub>t</sub>-aryl, -S(O)<sub>t</sub>-heteroaryl, -NR\*SO<sub>2</sub>R\*, -NR\*C(O)R\*, -NR\*C(O)N( $R^*$ )<sub>2</sub>, -N( $R^*$ )C(S)N( $R^*$ )<sub>2</sub>, -NR\*CO<sub>2</sub>R\*, -NR\*NR\*C(O)R\*, -NR\*NR\*C(O)N( $R^*$ )<sub>2</sub>, -NR\*NR\*CO<sub>2</sub>R\*, -C(O)C(O)R\*, -C(O)CH<sub>2</sub>C(O)R\*, -C(O)N( $R^*$ )N( $R^*$ )<sub>2</sub>, -C(O)N( $R^*$ )<sub>2</sub>, -C(O)NR\*SO<sub>2</sub>R\*, -OC(O)N( $R^*$ )<sub>2</sub>, -S(O)<sub>t</sub>R\*, -NR\*SO<sub>2</sub>N( $R^*$ )<sub>2</sub>, and -SO<sub>2</sub>N( $R^*$ )<sub>2</sub> wherein the two  $R^*$ s on the same nitrogen are optionally taken together to form a 5-8 membered

saturated, partially saturated or aromatic ring having additional 0-4 heteroatoms selected from oxygen, phosphorus, nitrogen or sulfur; and

each R\* is independently H, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, or heteroaryl.

2. (Cancelled)

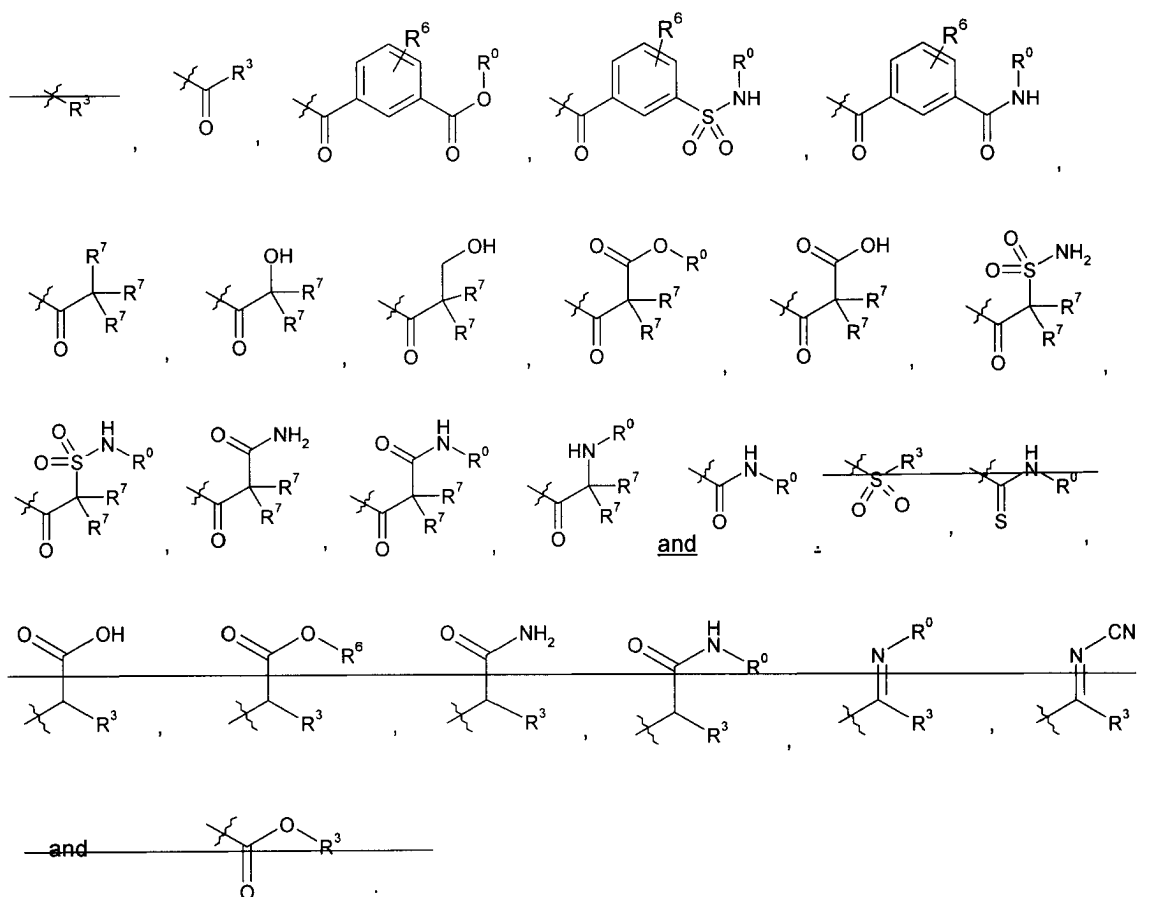
3. (Cancelled)

4. (Cancelled)

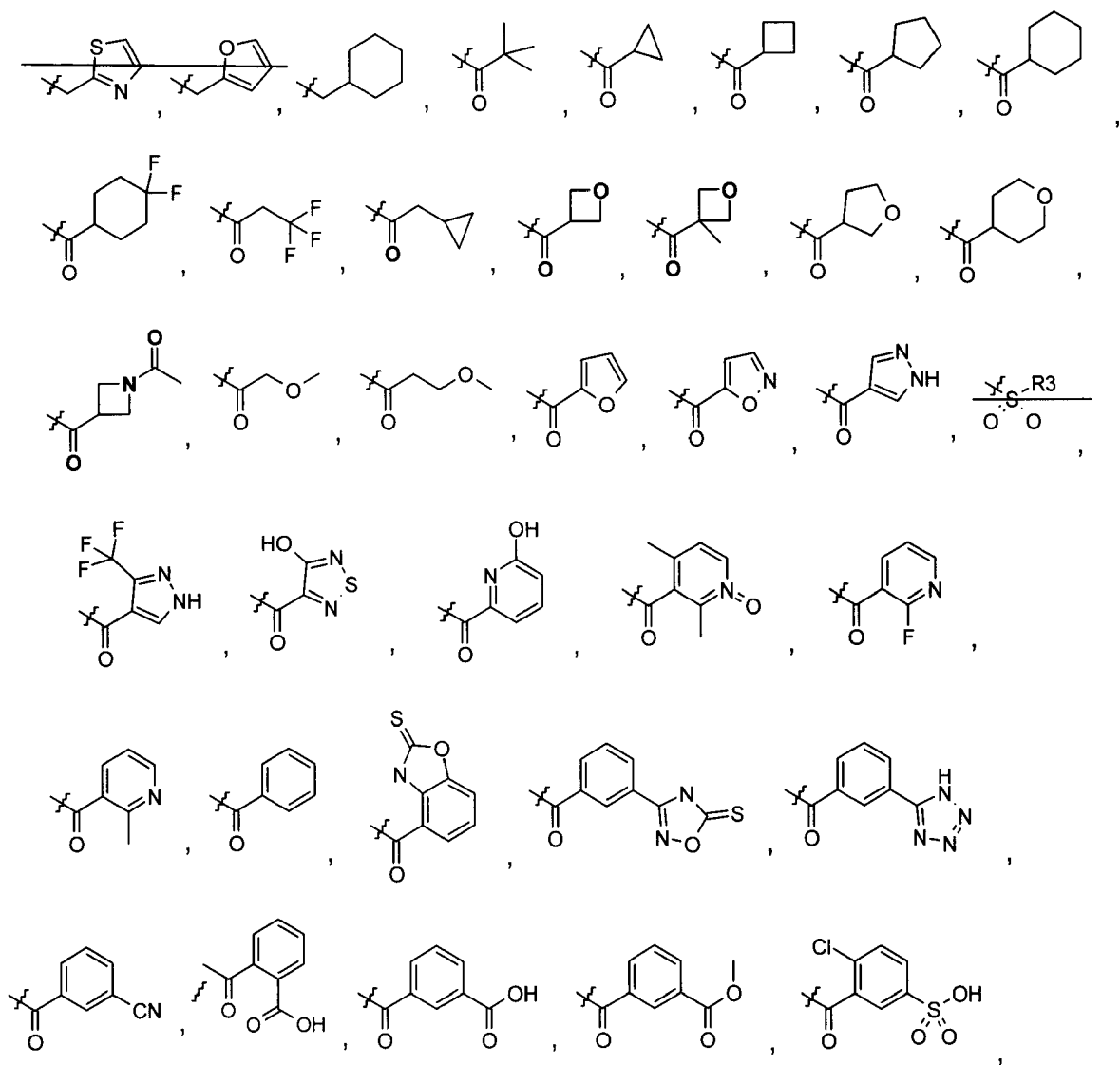
5. (Cancelled)

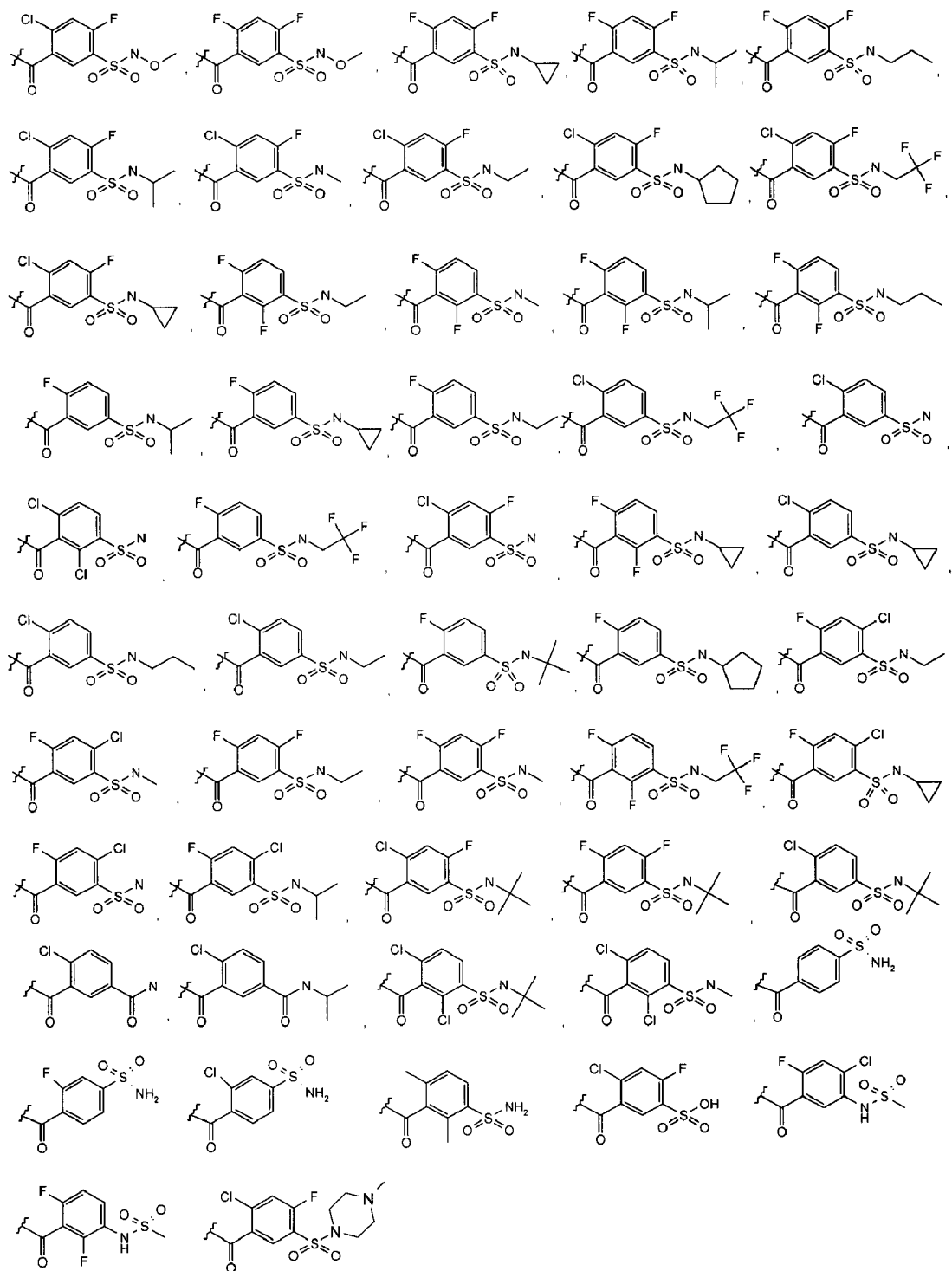
6. (Currently Amended) The compound of claim 5 1 wherein R<sup>9</sup> is methyl.

7. (Currently Amended) The compound of claim 4 1 wherein -(Y)<sub>m</sub>-R<sup>3</sup> is selected from the group consisting of

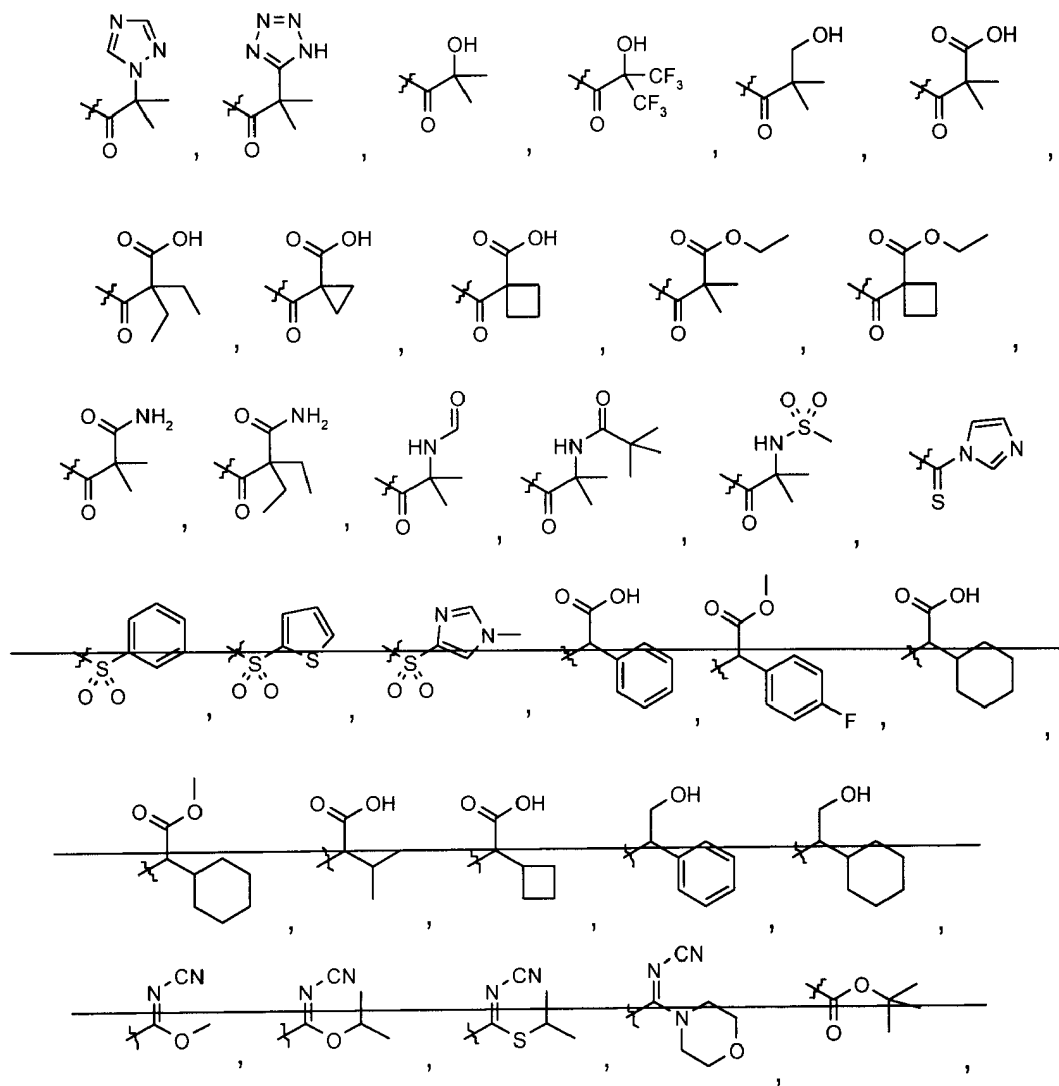


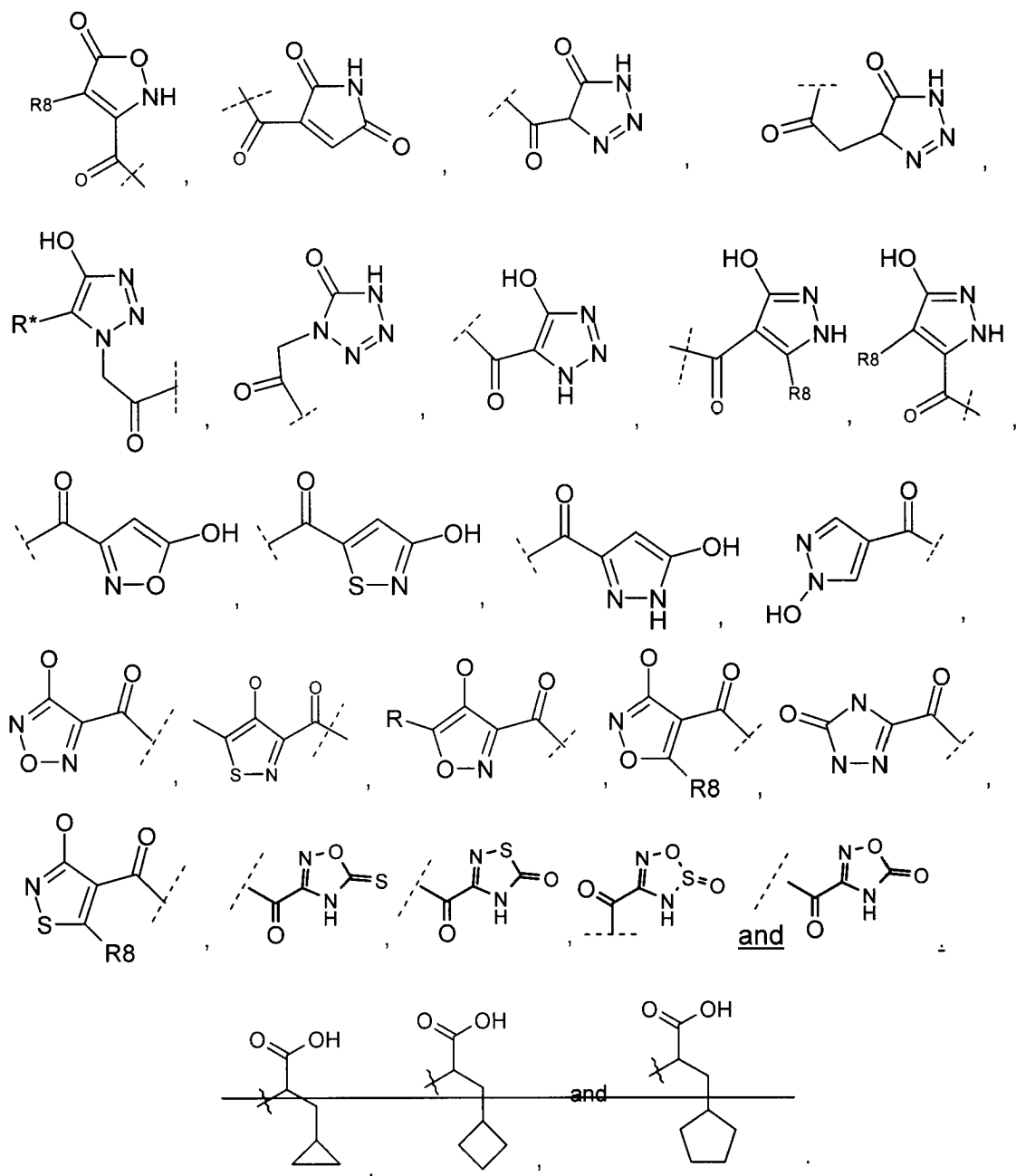
8. (Currently amended) The compound of claim 4 1 wherein  $-(Y)_m-R^3$  is selected from the group consisting of









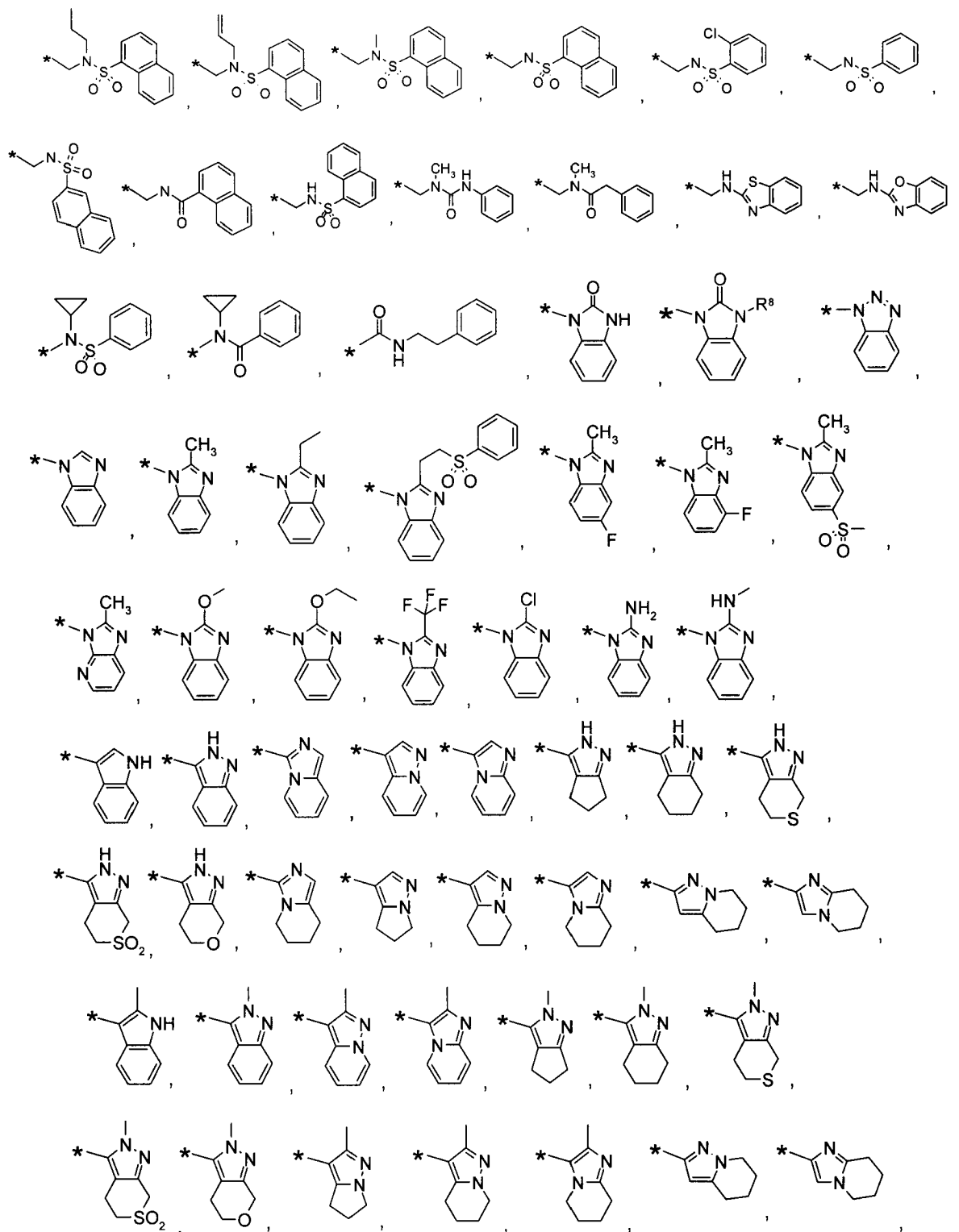


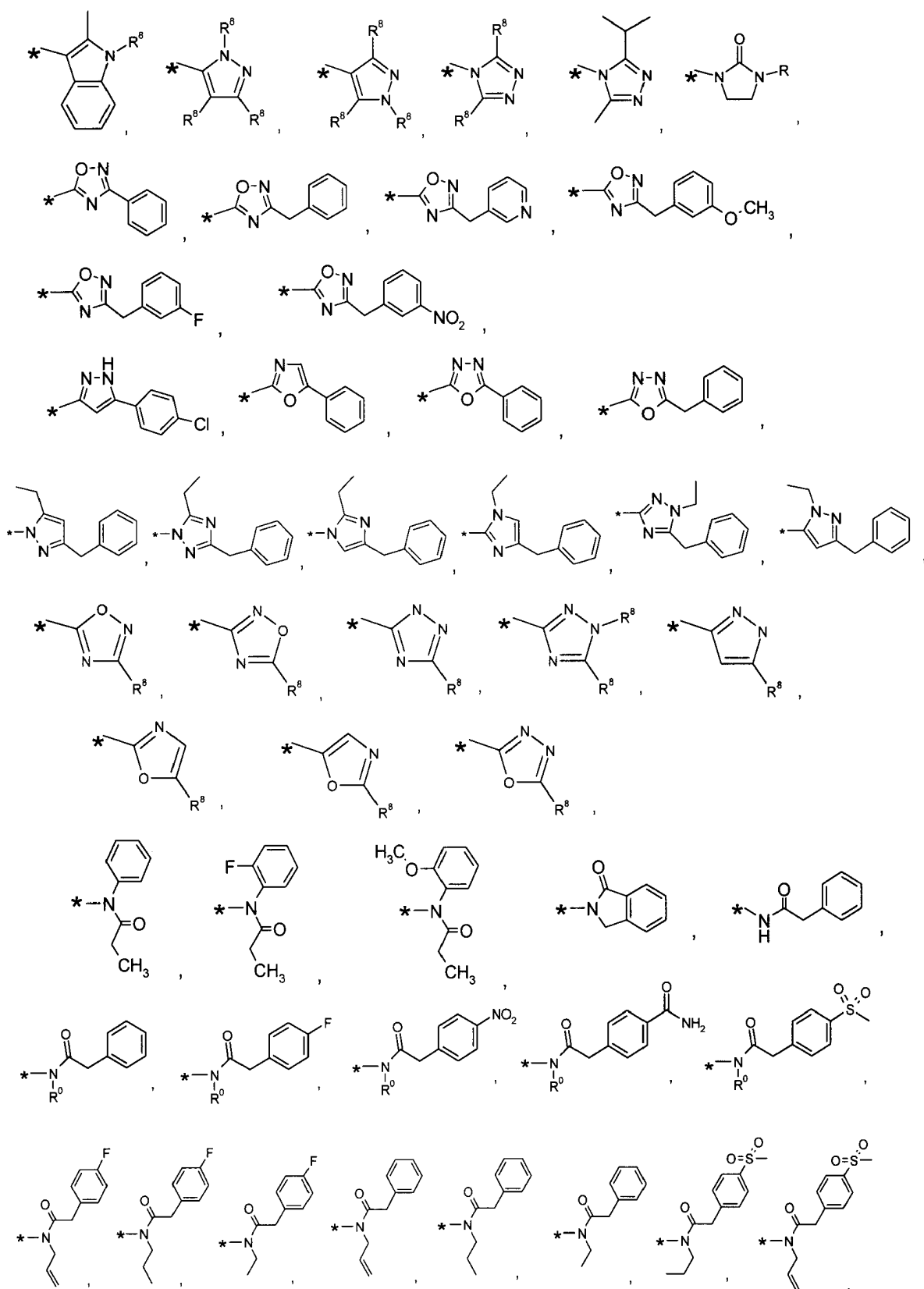
9. (Cancelled)
10. (Cancelled)
11. (Original) The compound of claim 1 wherein X is  $-(CH_2)-$ ,  $-(CH_2-CH_2)-$ , or  $-(CH_2-CH_2-CH_2)-$ .
12. (Cancelled)

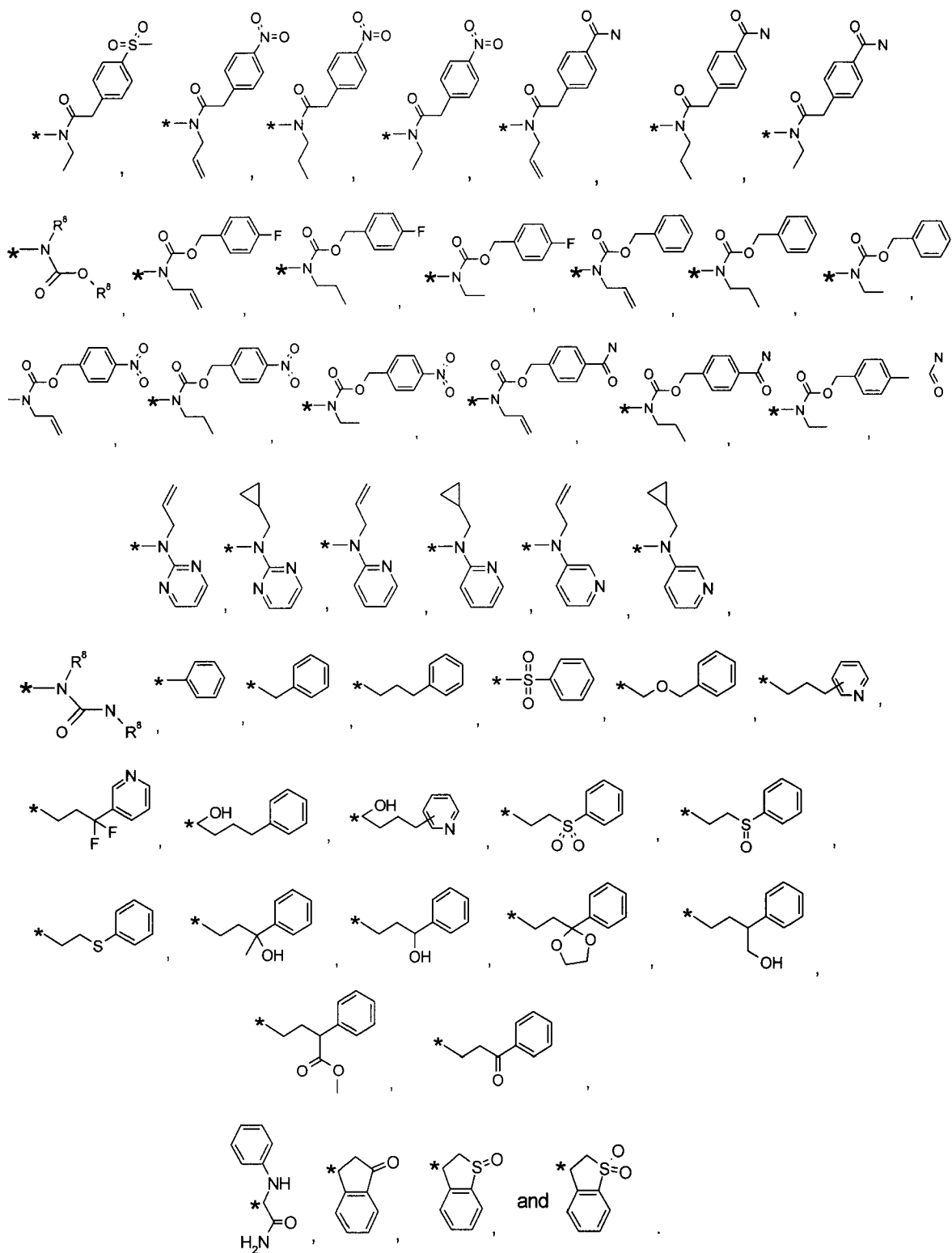
PU5020USW

13. (Cancelled)
14. (Cancelled)

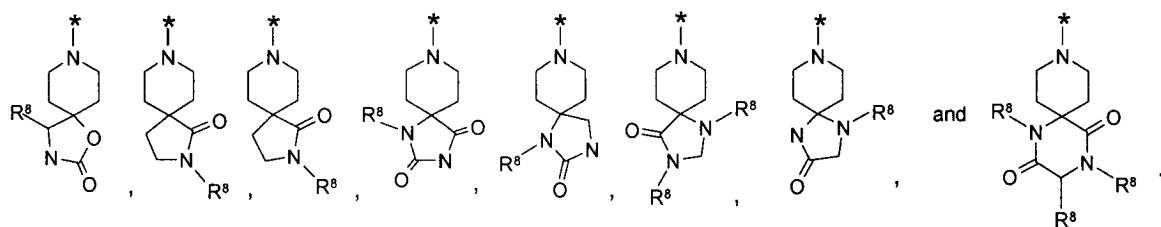
15. (Currently Amended) The compound of claim 42 1 wherein each R<sup>2</sup>, with an asterisk indicating a point of substitution from Ring A, independently is selected from:





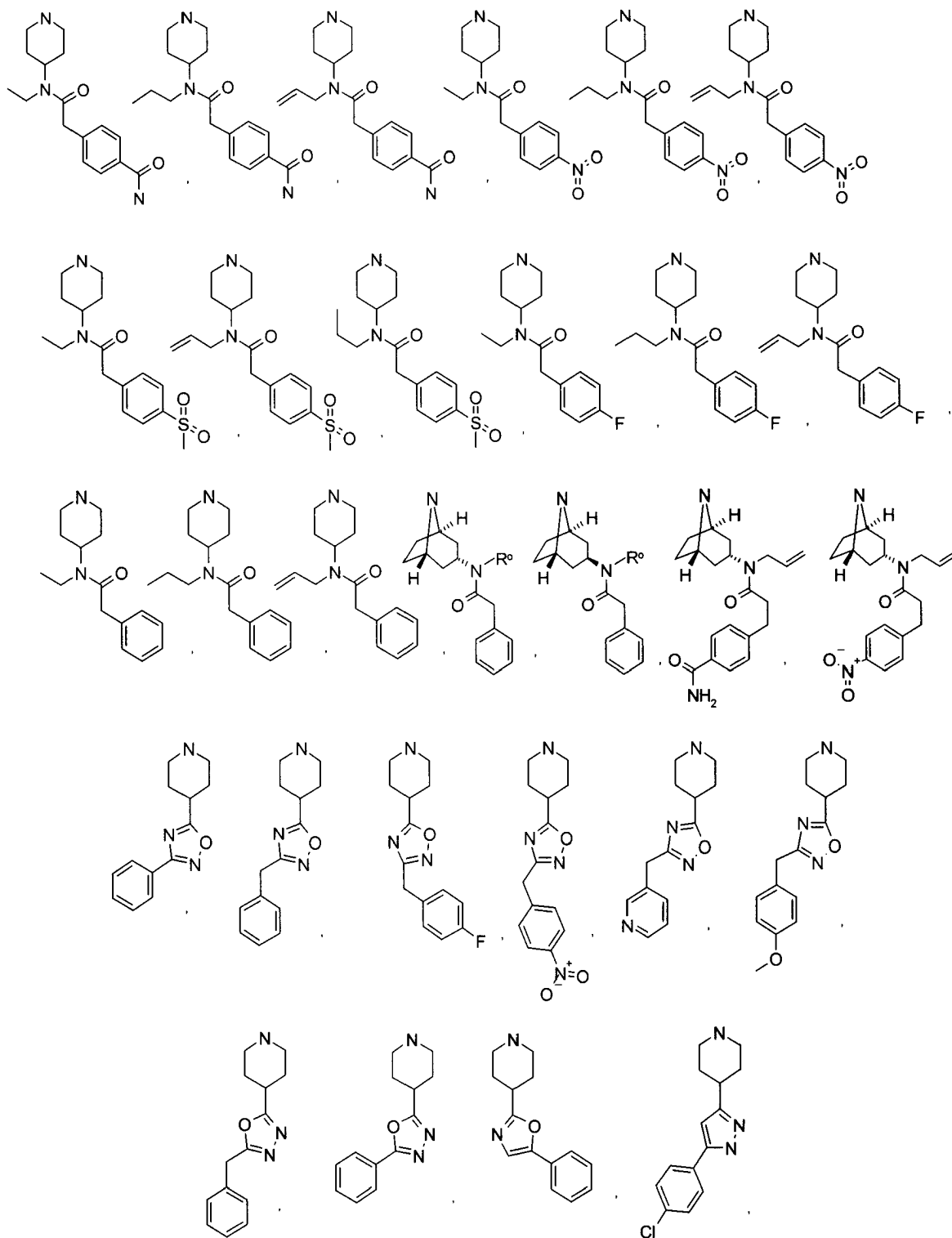


16. (Original) The compound of claim 1 wherein ring A, with two geminal R<sup>2</sup>s, is selected from:

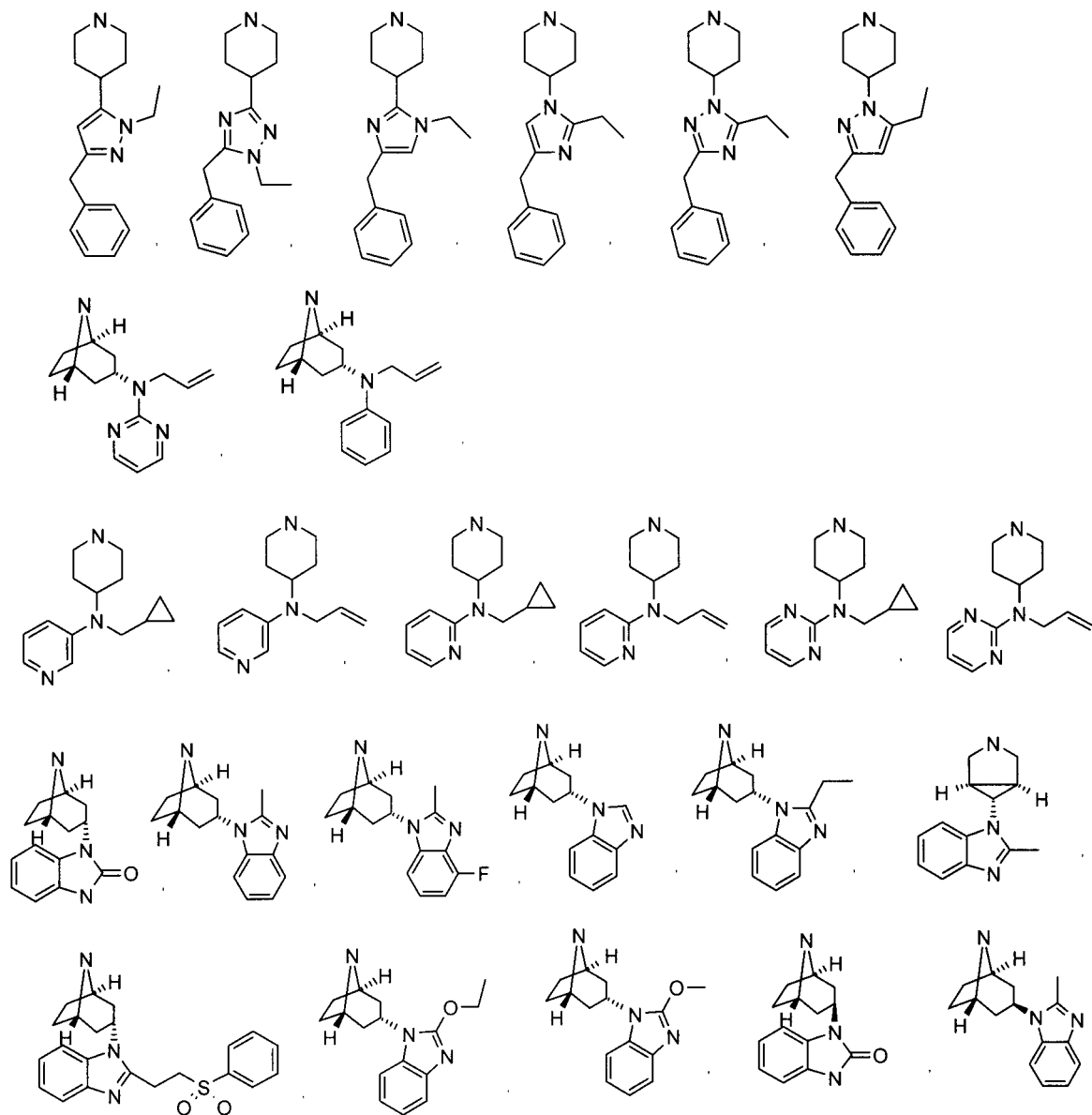


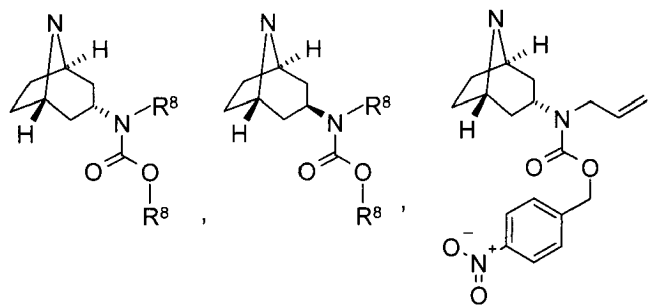
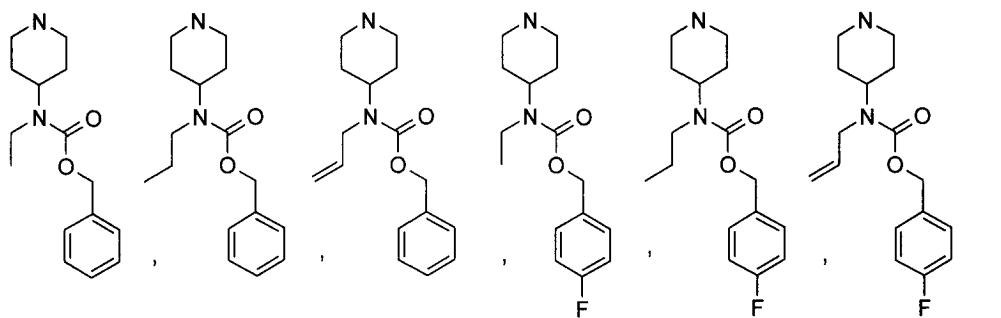
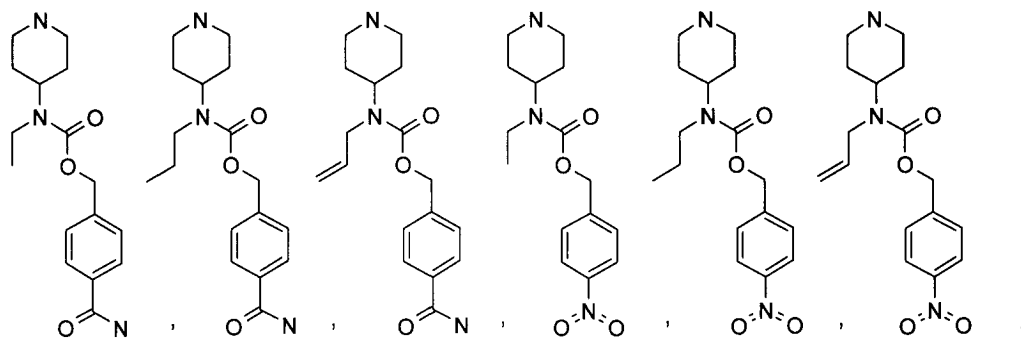
17. (Original) The compound of claim 1 wherein the A ring is tropane or piperidine, either optionally substituted with one or more R<sup>2</sup>.

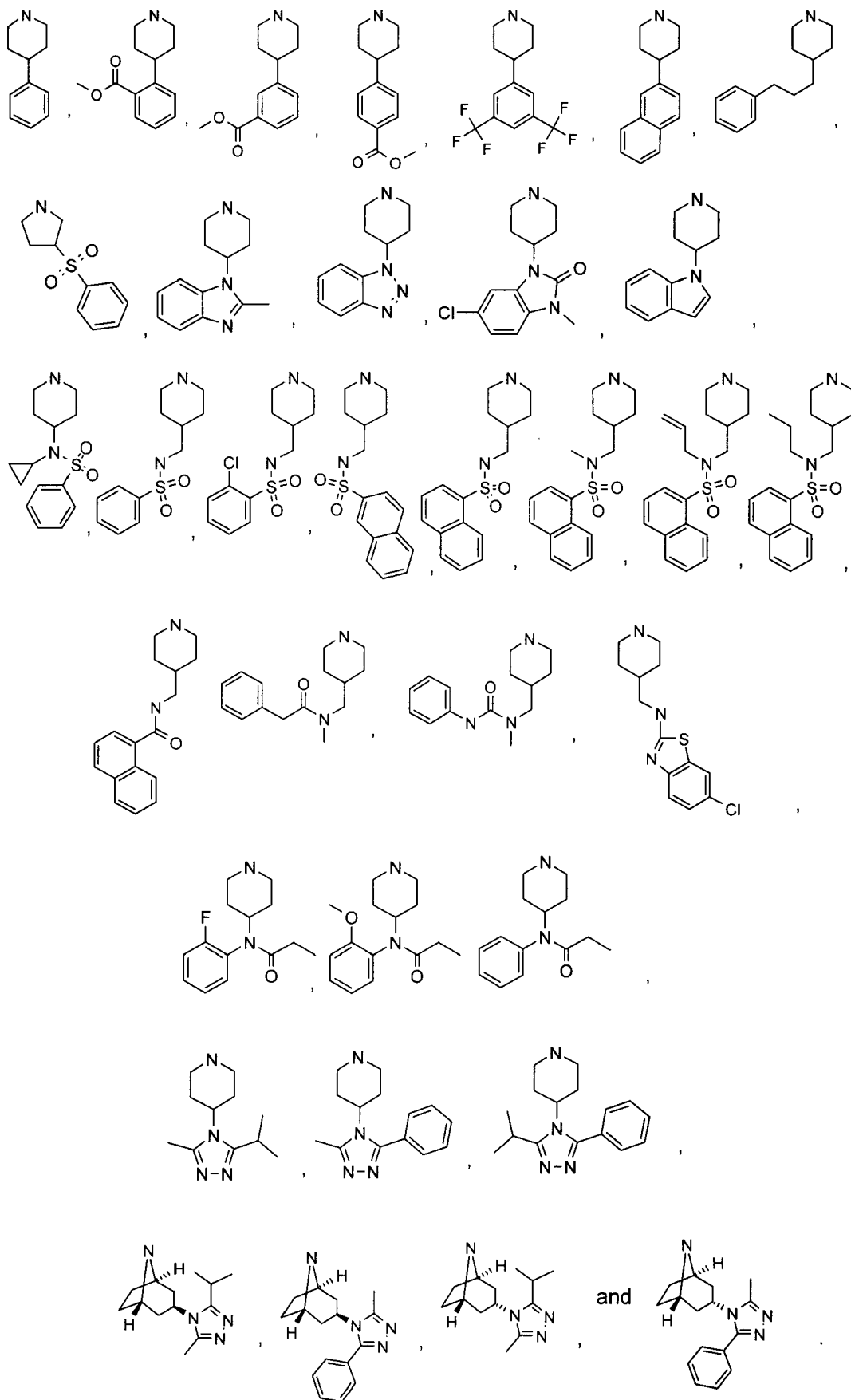
18. (Original) The compound of claim 15 wherein the A ring in combination with  $R^2$  is









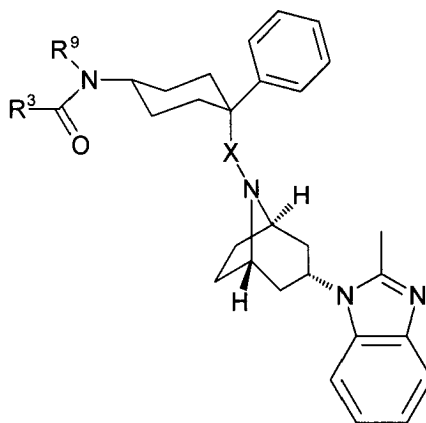


19. (Cancelled)

20. (Original) The compound of claim 17 wherein said A ring optionally is N-substituted.

21. (Original) The compound of claim 18 wherein the A ring is N-substituted with  $-(CH_2)_a-(V_b-R^+)$ .

22. (Original) The compound of claim 1 wherein the compound of formula (I) is:



wherein X is a C<sub>2</sub>-C<sub>3</sub> alkylene chain and R<sup>3</sup> and R<sup>9</sup> are each as defined in claim 1.

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled).

30. (Cancelled).

31. (Cancelled).

32. (Cancelled).

33. (Cancelled).

34. (Previously Amended) A pharmaceutical composition comprising a pharmaceutically effective amount of a compound according to claim 1 together with a pharmaceutically acceptable carrier.
35. (Previously Amended) The pharmaceutical composition according to claim 34 in the form of a tablet or capsule.
36. (Previously Amended) The pharmaceutical composition according to claim 34 in the form of a liquid.
37. (Cancelled)
38. (Cancelled)
39. (Cancelled)